

REMARKS

This is in response to the Office Action dated October 4, 2005. Claims 2-10, 14, 16, 18, 29 and 30 are pending.

This amendment should be entered since the claim changes only address Section 112 issues. In particular, only dependent claims 10, 29 and 30 have been amended, and these changes are in response to the Section 112 issues raised by the Examiner in the final rejection.

Section 112 Issues

Claim 10 stands rejected under Section 112, first paragraph. Claim 10 has been amended to remove the objected to language so as to overcome any potential issue in this regard.

Claims 29-30 stand rejected under Section 112, second paragraph, in sections 5-7 of the Office Action (i.e., antecedent basis issue raised by Examiner). Claims 29-30 have been amended to address and overcome any potential issue in this regard.

Claims 29-30 also stand rejected under Section 112, first paragraph, in section 4 of the Office Action. The Examiner contends that the language “a common electrode drive pulse is twice as long as a segment electrode drive pulse” is new matter and is not supported by the originally filed application. In particular, the Examiner states that the specification does not indicate that Fig. 3 of the instant application (which illustrates this) is “to scale.” This Section 112 rejection is respectfully traversed for at least the following reasons. Fig. 3 of the application as originally filed clearly shows this feature, and one of ordinary skill in the art would have clearly recognized this. This Section 112 rejection should be withdrawn.

Art Rejections

Claim 10 stands rejected under Section 103(a) as being allegedly unpatentable over Rebeschi in view of Tang and Koyama. This Section 103(a) rejection is respectfully traversed for at least the following reasons.

As shown in the attachment to the Amendment filed July 10, 2003, Rebeschi applies the same -210 V to neighboring pixels during operation. Figs. 6E-6F of Rebeschi clearly illustrate that the same -210 V is applied to immediately neighboring pixels in adjacent columns during operation of Rebeschi's display device. Moreover, Figs. 5E-5F and 6E-6F of Rebeschi illustrate that the *same polarity is applied to all neighboring pixels belonging to the same row in Rebeschi*. Since Rebeschi requires applying the same polarity to all neighboring pixels in the same row, the reference cannot possibly disclose or suggest the requirement of claim 10 that the prescribed electric fields are always different from each other in polarity in all adjacent electrode pair regions. In fact, Rebeschi teaches directly away from this aspect of claim 10 by applying the same polarity to adjacent pixels. Accordingly, it can be seen that even if Tang and Rebeschi were combined as alleged in the Office Action (which applicant believes would be incorrect in any event), the invention of claim 10 still would not be met. The Office Action, apparently admitting this, cites to Koyama.

While Koyama mentions EL panels and CRTs, these devices are entirely different than LCDs. In a CRT for example, an electron beam emitted from an electron gun scans phosphor pixels in a vacuum tube. It is clear that the dot polarity inversion driving technique of Koyama is not applicable to a CRT. An EL panel and an LCD are also entirely different. For example, while current is not injected into the liquid crystal layer, it is injected into an EL layer. From the above, it is clear that the dot polarity inversion driving technique of Koyama cannot be directly applicable to an EL display apparatus or a CRT apparatus.

Regarding the necessity of the dot polarity inversion driving technique of Fig. 7 and Fig. 11, Koyama describes in column 1, lines 53-58, as follows: “There is also a need to drive the liquid crystal panel by an alternating current signal. Therefore, the polarity of the liquid crystal drive video signal is always changed. Polarity inverting drive per dot is more effective in improving and stabilizing image qualities than polarity inverting drive per frame or polarity inverting drive per line.” In the organic EL device, on the other hand, light emission is induced by injecting electric current into the light emission layer. It is of course possible to drive the organic EL device by direct electric current. Therefore, the dot polarity inversion driving technique has not been related to the EL device. Further, the methods and circuits for driving an organic EL device and a liquid display apparatus are entirely different from each other and can not be replaced with each other.

Koyama describes in column 7, lines 6-9, as follows: “The present invention can suitably applied to image display apparatuses, such as a liquid crystal panel and a liquid crystal projector, for which a polarity inversion drive is indispensable considering the life of the liquid crystal.” However, Koyama provide no mention regarding whether there is any relation between the polarity inversion drive and the organic EL device.

As explained in the above paragraphs, the dot polarity inversion driving technique in Fig. 7 and Fig. 11 of Koyama is to be applied to the liquid crystal panel. Importantly, Koyama provides no teaching and no suggestion regarding any necessity or possibility of applying the dot polarity inversion driving technique to an organic EL device. Thus, Koyama fails to disclose or suggest this aspect of the invention of claim 1. Moreover, because Koyama provides no teaching and no suggestion regarding any necessity or possibility of applying the dot polarity inversion

driving technique to an organic EL device, one of ordinary skill in the art would never have combined the reference with the others as alleged in the Office Action.

Claim 14 requires "driving said organic EL emission device in a manner such that said prescribed electric fields at a given point in time are always different from each other in polarity as applied to all electrode pair regions that are adjacent to each other" and "an organic light emission layer for EL emission . . . injecting electric current into said organic light emission layer." Again, the cited art fails to disclose or suggest this aspect of claim 14, either taken alone or in the alleged combination.

New claims 29-30 require that **a common electrode drive pulse is twice as long as a segment electrode drive pulse** (e.g., see Fig. 3 of the instant application). The active matrix system of Koyama cannot do this. Thus, the cited art fails to disclose or suggest this aspect of these claims, either taken alone or in the alleged combination.

Claim Numbering

The Examiner suggests at the bottom of page 9 of the Office Action that he would like the claims to be renumbered. While applicant does not believe this is necessary, applicant would be agreeable to this so long as the Examiner does not contend that this would raise a "new issue" and prevent entry of this Amendment After Final. If the Examiner enters this Amendment After Final via an Advisory Action and requests that the applicant renumber the claims, the applicant will do so shortly thereafter for the Examiner's convenience.

Conclusion

For at least the foregoing reasons, it is respectfully requested that all rejections be withdrawn. All claims are in condition for allowance. If any minor matter remains to be resolved, the Examiner is invited to telephone the undersigned with regard to the same.

TANEYA et al.
Appl. No. 09/369,386
December 29, 2005

Respectfully submitted,

NIXON & VANDERHIE P.C.

By: _____

Joseph A. Rhoa
Reg. No. 37,515

JAR:caj
901 North Glebe Road, 11th Floor
Arlington, VA 22203-1808
Telephone: (703) 816-4000
Facsimile: (703) 816-4100